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10 Specially Appearing for Environmental Council of
11 Sacramento for Purposes of Presenting Part 2 Testimony

12 **BEFORE THE**
13 **CALIFORNIA STATE WATER RESOURCES CONTROL BOARD**

14 HEARING IN THE MATTER OF
15 CALIFORNIA DEPARTMENT OF WATER
16 RESOURCES AND UNITED STATES
17 BUREAU OF RECLAMATION
18 REQUEST FOR A CHANGE IN POINT OF
19 DIVERSION FOR CALIFORNIA WATER FIX

20 **TESTIMONY OF JAMES P. PACHL -**
21 **REVISED**
22 **ENVIRONMENTAL COUNCIL OF**
23 **SACRAMENTO**

I. INTRODUCTION

I am a retired attorney, having previously practiced law in Oakland, California, through 1999, and thereafter in Sacramento, California, through 2013. I was one of the co-founders of the Friends of the Swainson's Hawk ("FOSH"), in 1994, a nonprofit organization dedicated to education and advocacy for the protection of the Swainson's Hawk, which is listed as "threatened" under the California Endangered Species Act. FOSH is a member of the Environmental Council of Sacramento.

My work included submitting written and oral comments to local, state, and Federal agencies regarding the effects upon the Swainson's Hawk of numerous proposed development projects, local land use changes, and mitigation measures and mitigation ordinances, occasional litigation under the CEQA and the California Endangered Species Act; and education of the public, the media, and decision-makers regarding the Swainson's Hawk.

In preparation for this testimony, I have reviewed portions of the environmental review documents for the Delta Tunnels project (a.k.a. "California WaterFix") pertaining to the effects of the construction and operation of the project upon the Swainson's Hawk.

II. BACKGROUND ON THE SWAINSON'S HAWK

The Swainson's Hawk ("SWH") is a medium-sized raptor which is adapted to catching and eating rodents and larger insects found in open grasslands and prairies, but has become increasingly dependent on suitable low-growing agriculture for foraging for small rodents as native plant communities have been converted to agriculture. Swainson's Hawks breed and nest in the Great Plains, California's Central, with a small population in the Great Basin Valley from March through September or October, and then migrate southward for the winter. The Great Plains and Great Basin populations predominately migrate to the Argentine pampas for the winter, whereas those in the Central Valley have been tracked to central Mexico, Central America, and northern South America, with the bulk wintering in central Mexico. However, there are groups of 10 to 30 Swainson's Hawks, which overwinter in the Delta. Their origin is unknown. (ECOS-29, Woodbridge, "Swainson's Hawk, California Partners in Flight Bird Conservation Plan", 1998; SWRCB-102, FEIR/S p. 12A-21; ECOS-30, CDFW, "Five Year

1 Status Review for Swainson's Hawk" 2016, pp. 3, 5, 8). The CDFW "Five year Status Review,"
2 is the most comprehensive discussion of the SWH in the Central Valley

3 The Central Valley Hawks typically return to their breeding grounds in the Central Valley
4 in March and April, and nest in tall mature trees, most often in the remaining riparian systems.
5 They use the same nest territory year after year.

6 The great bulk of the Swainson's Hawk population breeds and nests in the Great Plains.
7 The Central Valley population in the late 1800's has been estimated at 17,000 nesting pairs,
8 which was mostly extirpated due to habitat destruction and possibly shooting and DDT. More
9 recent surveys found approximately 2,000 nesting pairs in the Central Valley. Due to
10 population loss and ongoing destruction of suitable nest trees and foraging habitat, the SWH
11 was declared "threatened" under the California Endangered Species Act in 1983. The majority
12 of the documented nest trees have been found in the riparian systems of Sacramento, Sutter,
13 Yolo, and San Joaquin Counties, including the Delta, within 50 miles of rapidly expanding
14 urban areas. Habitat in these areas is being reduced by ongoing urban development, removal
15 of large riparian trees from levees for maintenance, and ongoing replacement of low-growing
16 field crops (which provide SWH foraging) with orchards and vineyards, which are mostly
17 inaccessible for SWH foraging. (ECOS-30, CDFW, "Five Year Status Review for Swainson's
18 Hawk", 2016.) The SWH does not nest in the foothills and is rarely seen there.

19 The Swainsons's Hawks of the Central Valley appears to be a separate population,
20 having no or little interaction with the SWH of the Great Plains, although they are genetically
21 alike.

22 **III. EFFECT OF THE DELTA TUNNELS PROJECT ON SWAINSON'S HAWK**

23 The California Department of Fish and Wildlife ("DFW") estimates that construction of
24 the project will cause permanent loss of 3,~~377~~770 acres of suitable SWH foraging habitat, 22
25 acres of SWH nesting habitat, including at least seven nest sites with suitable trees, and the
26 temporary loss of an additional 1,~~134~~14 acres of foraging habitat. Other unfavorable project
27 impacts on nesting SWH include disturbance noise from construction and increased truck
28 traffic, dust, rodent control measures, habitat fragmentation, and increased distances from

1 SWH nests to suitable foraging due to habitat destruction. (SWRCB-107, DFW Incidental
2 Take Permit, p. 93.) These impacts upon a threatened bird species would not be in the public
3 interest.

4 The FEIR/S fails to mention additional adverse impacts upon SWH that could occur
5 from the operation of the Delta Tunnels project once completed. These impacts could include
6 cessation of agriculture on large areas of Delta farmland used by SWH as foraging habitat, due
7 to excessive upstream diversions of fresh water via the Delta Tunnels that would make Delta
8 waters too saline for irrigation of crops. Cessation of agriculture would likely be followed by
9 levee collapse and permanent flooding because landowners would no longer have an
10 economic incentive to maintain the Delta levees.

11 **IV. THE PROJECT WOULD BE CONTRARY TO THE PUBLIC INTEREST BECAUSE IT**
12 **ALLOWS HABITAT PRESERVES INTENDED TO MITIGATE FOR LOSS OF SWH**
13 **NESTING AND FORAGING HABITAT TO BE LOCATED TOO FAR AWAY TO**
14 **BENEFIT THE IMPACTED DELTA SWAINSON'S HAWK POPULATION**

15 Most of the mitigation and take avoidance measures required by CDFW's Incidental
16 Take Permit are beneficial to nesting SWH, and more comprehensive than some mitigation
17 programs that I have seen elsewhere. Unfortunately, however, there is a very serious flaw that
18 would make these measures useless for the SWH population affected by the project.

19 The CDFW Incidental Take Permit, Attachment 4, p. 1 (SWRCB-107), and the FEIR/S,
20 pp. 12-3586, ~~38-133~~ (SWRCB-102), state that SWH foraging habitat mitigation lands may be
21 located up to FIFTY (50) miles from the project area, which is too far away to benefit the
22 population of SWH affected by the project. I have never seen a SWH mitigation program that
23 allows mitigation preserve lands to be sited 50 miles from the area of impact.

24 After considerable study, CDFW has determined that the maximum foraging radius, for
25 successful nesting of SWH is approximately 10 miles from the nest. (ECOS-31, CDFW Staff
26 Report Regarding Mitigation for Impacts of Swainson's Hawks in the Central Valley of
27 California," 1994.) Longer distances are certainly possible, but the amount of energy
28 expended and additional time needed to fly from the nest to the foraging areas and return
makes it very difficult or impossible for a male hawk to provide sufficient food for nestlings and

1 the nesting female. The City of Elk Grove, CA, SWH Mitigation Program has adopted CDFW's
2 standard that "impacts [of development] for Swainson's Hawk foraging habitat should be
3 mitigated within 10 miles of the project site." (ECOS-32, City of Elk Grove, CA, "Swainson's
4 Hawk Program", p. 10.)

5 Most of the Delta Tunnels project is located in rural land uses that are very unlikely to
6 develop in the future. There is plenty of vacant agricultural and range land available within ten
7 miles of the Delta Tunnels' impacts that is suitable for Swainson's Hawk habitat mitigation
8 preserves, or can be made suitable by appropriate management, even after excluding land,
9 which is below sea level or is being used for orchards, vineyards, development, or other uses
10 incompatible with SWH foraging. With a few exceptions, there is no reason to site SWH
11 mitigation properties farther than ten miles from the impacts of the Delta Tunnels.

12
13 
14 JAMES P. PACHL

15 REFERENCES

16 CDFW, Five Year Status Review for Swainson's Hawk, 2016. [ECOS-30]

17 CDFW, Staff Report Regarding Mitigation for Impacts of Swainson's Hawks in the Central
18 Valley of California, 1994. [ECOS-31]

19 City of Elk Grove, California, Swainson's Hawk Program. [ECOS-32]

20 Woodbridge, B. 1998. Swainson's Hawk (*Buteo swainsoni*). In The Riparian Bird Conservation
21 Plan: A Strategy for Reversing the Decline of Riparian-Associated Birds in California.
22 California Partners in Flight. [ECOS-29]